

CLAIMS

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1. A method of controlling a multical in a telecommunications system over a transmission path between a telecommunications network and a subscriber terminal, characterized by a step of
- 5 setting up any new call in an existing multical, according to a criterion, either by
- (i) setting up said new call on a new bearer, or
- (ii) setting up said new call on an existing bearer such that said existing bearer is shared by at least two calls.
- 10 2. A method according to claim 1, wherein a decision whether the new bearer is required or whether said existing bearer is to be used is made by the network according to said criterion.
3. A method according to claim 1 ~~or 2~~, wherein said criterion is a preference of a user of said subscriber terminal.
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- 15 4. A method according to claim 1 ~~or 3~~, comprising a step of indicating in a call setup signalling from said subscriber equipment to said network whether the new bearer is required or whether said existing bearer is to be used.
5. A method according to claim 1, ~~2 or 3~~, comprising a step of
- 20 indicating in a call setup signalling which existing bearer is to be used.
6. A method according to claim 5, wherein said step of indicating comprises a step of
- indicating in the call setup signalling a bearer ID of the existing
- 25 bearer to be used.
7. A method according to ~~any one of claims 1 to 6~~, ^{*claim 1*} comprising a step of
- allocating a dedicated bearer to the new call by a default by the network if the user does not indicate in the call setup any existing bearer to be
- 30 used.
8. A method according to ~~any one of claims 1 to 7~~, ^{*claim 1*} comprising a step of
- changing a call currently being on a shared bearer to use a new dedicated bearer.

9. A method according to claim 8, wherein said step of changing comprises the steps of

5 sending, from the subscriber equipment to the network, a call setup message containing a transaction identifier of said call currently on the shared bearer and an indication that a new dedicated bearer is requested, allocating in response to said call setup message, a new dedicated bearer and transferring the call indicated by the transaction identifier received to said allocated bearer by the network.

10 10. A method according to ^{claim 1} ~~any one of claims 1 to 9~~, comprising a step of changing a call currently using a dedicated bearer to use another bearer shared with at least other call.

15 11. A method according to claim 10, wherein said step of changing comprises the steps of sending, from the subscriber equipment to the network, a call setup message containing a transaction identifier of said call having the dedicated bearer and a bearer ID indicating the shared bearer to be used, transferring, by the network in response to said call setup message, the call indicated by the transaction identifier received to said existing bearer.

20 ^{sub c17} 12. A method according to ^{claim 1} ~~any one of claims 1 to 11~~, comprising a step of putting an existing call on an existing bearer of said multical into a hold mode prior to setting up said new call on said existing bearer.

25 13. A method according to ^{claim 1} ~~any one of claims 1 to 12~~, comprising a step of alternating the calls on a shared bearer between an active mode and said hold mode by the user.

30 14. A method according to claim 13, wherein said alternating comprises a step of sending a hold message containing a transaction identifier of a call in order to put the respective call on hold.

a 15. A method as claimed in ^{claim 1} ~~any one of claims 1 to 14~~, comprising a step of offering a new subscriber-equipment-terminating call to the user by

means of a call waiting supplementary service.

a 16. A method as claimed in ^{claim 1} ~~any one of claims 1 to 14~~, comprising a step of

5 offering a new subscriber-equipment-terminating call to the user by means of a call waiting supplementary service only when a maximum number of the bearers allowed has been used by the multicall.

a 17. A method according to ^{claim 1} ~~any one of claims 1 to 16~~, wherein said telecommunications system comprises two telecommunications networks of different generations, the first one of the telecommunications networks sup-
10 porting both shared bearers and dedicated bearers for a multicall, and the second one of the telecommunications networks supporting only the shared bearers for a multicall, and said method comprises an inter-network multicall handover comprising the steps of

15 putting calls of the multicall subjected to handover irrespective of whether they have been in a dedicated bearer mode or a shared bearer mode, on a common shared bearer in said first network prior to the handover,

carrying out of handover said multicall onto a shared bearer in said second telecommunications network.

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20 18. A telecommunications system comprising an arrangement for controlling a multicall over a transmission path between a telecommunications network and a subscriber terminal, characterized in that the network is arranged to set up a new call in an existing multicall, according to a criterion, either by

25 (i) setting up said new call on a new bearer, or
(ii) setting up said new call on an existing bearer such that said existing bearer is shared by at least two calls.

19. A system according to claim 18, wherein a decision whether the new bearer is required or whether said existing bearer is to be used is made by the network according to said criterion.

a 30 20. A system according to claim 18 ~~or 19~~, wherein said criterion is a preference of a user of said subscriber terminal.

a 21. A system according to claim 18, ~~19 or 20~~, wherein a call setup signalling from said subscriber equipment to said network contains an indication whether the new bearer is required or whether said existing bearer is to be

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claim 18
22. A system according to ~~any one of claims 18 to 21~~, wherein said call setup signalling contains an indication which existing bearer is to be used, preferably the bearer ID of the existing bearer which is to be used, and
5 wherein the network is arranged to allocate a dedicated bearer to the new call by a default if no indication of any existing bearer to be used is received in said call setup signalling.

claim 18
23. A system according to ~~any one of claims 18 to 22~~, wherein
the subscriber equipment is arranged to send to the network a call
10 setup message for changing a call currently being a shared bearer to use a new dedicated bearer, said message containing a transaction identifier of said call and an indication that a new dedicated bearer is requested,
the network is responsive to said call setup message for allocating
a new dedicated bearer and transferring the call indicated by the received
15 transaction identifier to said allocated bearer.

claim 18
24. A system according to ~~any one of claims 18 to 23~~, wherein
the subscriber equipment is arranged to send to the network a call
setup message for changing a call currently using a dedicated bearer to use
another bearer shared with at least other call, said message containing a
20 transaction identifier of said call having the dedicated bearer and a bearer ID indicating the shared bearer to be used,
the network is responsive to said call setup message for transferring
the call indicated by the transaction identifier received to said existing bearer.

claim 18
25. A system according to ~~any one of claims 18 to 24~~, wherein
the network is arranged to offer a new subscriber equipment termi-
nating call to the user by means of a call waiting supplementary service on a
shared bearer either always or only when a maximum number of the bearers
allowed has been used by the multicall.

claim 18
26. A system according to ~~any one of claims 18 to 25~~, comprising a
step of
30 putting an existing call on an existing bearer of said multicall into a hold mode prior to setting up a new call.

27. A subscriber terminal for a telecommunications system, said terminal being capable of having a multicall over a transmission path between

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5 a telecommunications network and a subscriber terminal, characterized in that the terminal is arranged to be able to indicate at a setup stage of a new call in an existing multical whether said new call is set up on a new bearer or on an existing bearer such that said existing bearer will be shared by at least two calls.

28. A subscriber terminal according to claim 27, wherein said terminal is a mobile station for a mobile communications system.